



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D5425-043
Job Sheet 192858



Part No: D5425-043

Job Qty: 1 ea

Part Name: Float Skidtube Assembly



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 4/3/19

Job Tracking No:

Due Date: 4/12/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG D5425 REV:B IPP REV:A 17.11.02 NEW ISSUE DD VERF:JFS IPP REV:B 18.08.20 AS PER DWG
REV:B DD VERF:DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
90	Start up Operation	1 Ea	4/12/19	4/12/19	0.00	0.00	Start Up Skidtubes-2	
110	Skidtubes	1 pcs	4/12/19	4/12/19	0.00	8.24	Skidtubes-3	
120	CNC Vertical Machining	1 pcs	4/12/19	4/12/19	0.00	22.77	HAAS1-4	
130	QC	1 pcs	4/12/19	4/12/19	0.00	0.00	QC2 Machining-4	
140	QC	1 pcs	4/12/19	4/12/19	0.00	0.00	QC8 Machining-4	
150	HandFinish	1 pcs	4/12/19	4/12/19	0.00	0.24	HandFinish1	
160	QC	1 pcs	4/12/19	4/12/19	0.00	0.00	QC7-5	
170	CNC Bend Skidtubes	1 pcs	4/12/19	4/12/19	0.00	2.63	CNC Bend Skidtube	
180	QC	1 pcs	4/12/19	4/12/19	0.00	0.00	QC5	
190	Skidtubes	1 pcs	4/12/19	4/12/19	0.00	8.24	Skidtubes-3	
200	QC	1 pcs	4/12/19	4/12/19	0.00	0.00	QC5	
210	HandFinish	1 pcs	4/12/19	4/12/19	0.00	0.24	HandFinish6	
220	QC	1 pcs	4/12/19	4/12/19	0.00	0.00	QC7-5	
230	Skidtubes	1 pcs	4/12/19	4/12/19	0.00	8.24	Skidtubes-3	
240	QC	1 pcs	4/12/19	4/12/19	0.00	0.00	QC5	
250	HandFinish	1 pcs	4/12/19	4/12/19	0.00	0.24	HandFinish6	
260	QC	1 pcs	4/12/19	4/12/19	0.00	0.00	QC7-5	
270	SprayPaint	1 pcs	4/12/19	4/12/19	0.00	0.00	Spray Paint	
280	QC	1 pcs	4/12/19	4/12/19	0.00	0.00	QC14	
282	Outsource - 11 - Paint	1 pcs	4/12/19	4/12/19			ATE003-VC 2	
284	Packaging 2-1 - Receive - B4B	1 pcs	4/12/19	4/12/19	0.00	0.00	Packaging 2 - 1 - B4B	
							Packaging 2 - 2 - B4B	
							Packaging 2 - 3 - B4B	
							Packaging 2 - 5 - B4B	
							Packaging 2 - 4 - B4B	
							Packaging 2 - 6 - B4B	
							Packaging 2 - 7 - B4B	
							Packaging 2 - 8 - B4B	
							Packaging 2 - 9 - B4B	
							Packaging 2 - 10 - B4B	

Plex 4/3/19 9:05 AM Dart.lajeunesse.marie



Container No: S169473



Part: D5425-043

Job No: 192858

Serial No/Batch: S169473

Revision: B

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.

1270 Aberdeen Street

Hawkesbury, ON K64 1K7

CANADA

TEL: 1 613 632-6200

Email: sales@dartaero.com

www.dartaerospace.com

Date: 04/04/19

				Packaging 2 - 11 - B4B	
				Packaging 2 - 12 - B4B	
				Packaging 2 - 13 - B4B	
				Packaging 2 - 14 - B4B	
				Packaging 2 - 15 - B4B	
				Packaging 2 - 16 - B4B	
				Packaging 2 - 17 - B4B	
				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
286 QC 6	1 pcs	4/12/19	0.00 0.00	QC 6 - 9	
				QC 6 - 68	
				QC 6 - 61	
290 HandFinish	1 pcs	4/12/19	0.00 0.24	HandFinish	
300 QC	1 pcs	4/12/19	0.00 0.00	QC5	
310 Packaging	1 pcs	4/12/19	0.00 0.00	Packaging	
320 QC21-SA	1 Ea	4/12/19	0.00 0.00	QC21	

Part Op 110 - 1-Cut tube to finished length as per Dwg. 2-Debur ends as per Dwg.

Descriptions: 120 - 1-Machine as per Dwg. and Folio FB536 DWG REV: B FOLIO REV: A 2-Debur as per Dwg.

150 - 1-Scrub inside of tube with medium scotchbright.

170 - 1-Bend Aft end of tube as per Dwg. and Folio . Insert Bending mandrel DT 10328 at 20.0" from aft end. Use buggy A,B,C. to stabilize tube. HEIGHT 2-Bend Forward end of tube as per Dwg. and Folio . Insert Bending mandrel DT 10328 at 12.0" from fwd end. Use buggy A,B,C to stabilize tube. HEIGHT 3-Record dimensions on work order.

180 - #NAME?

190 - 1-Drill remaining holes of DETAIL M, N, P. USING DT10340 A,B,C,D 2-Open holes to finished size as per Dwg. 3-Debur holes per QSI002 section 4.2.3 and blow out all chips from inside of tube.

230 - 1-Wet install crossbolt spacers of Section G-G. Swage to 0.437 as per Dwg. PRIMER B 510816D Start Time: 4:30 pm Finish Time: 10:30 pm ***CURE TIME 6HRS. BEFORE PROCEEDING TO NEXT STEP*** 2-Swage crossbolt spacers of Section F-F to 0.313 as per Dwg. 3-Trim / Grind flush, deburr. 4-Identify per QSI 044 6.1

250 - ***DO NOT SUBMERGE TUBE IN DEOXIDIZER***

270 - ***PLUG ALL CROSSBOLT SPACER HOLES PRIOR TO PRIME AND PAINT*** 1-PRIME AS PER DWG AND QSI005 4.2.1.3.3 PRIMER BATCH: 5144559 2-PAINT AS PER DWG AND QSI005 4.2.2.4 PAINT BATCH: 5189609

282 - ***PLUG ALL CROSSBOLT SPACER HOLES PRIOR TO PRIME AND PAINT*** 1-PRIME AS PER DWG AND QSI005 4.2.1.3.3 PRIMER BATCH: 2-PAINT AS PER DWG AND QSI005 4.2.2.4 PAINT BATCH:

284 - C OF C IS REQUIRED

290 - 1-Install FWD and AFT cap seal with sikaflex-241 / 291 B 516347 Exp: 14-11-25 Start time: Finish time: 2-Coat all exposed hardware with LPS Procyon. Remove any excess off with MEK degreaser. A/R LPS Procyon B

DAS
70
9-89

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6028-195	Crosstube Material, 7075-T73/T73511	1 Ea (1 ea)	90-Start up Operation	501744
D5518-1	Crossbolt Spacer	18 pcs (18 ea)	230-Skidtubes	5148264
D5512-1	Crossbolt Spacer	12 pcs (12 ea)	230-Skidtubes	5175351
AN3C5A	Bolt	6 Ea (6 ea)	290-HandFinish	5176457
D3672-1	Washer, Phenolic	6 pcs (6 ea)	290-HandFinish	5164009
D5483-041	Tow Cap Assembly	1 pcs (1 ea)	290-HandFinish	5150717
D5484-041	Aft Cap Assembly	1 pcs (1 ea)	290-HandFinish	5151947
NAS1149C0332R	Washer	6 Ea (6 ea)	290-HandFinish	5158079

Job Allocations

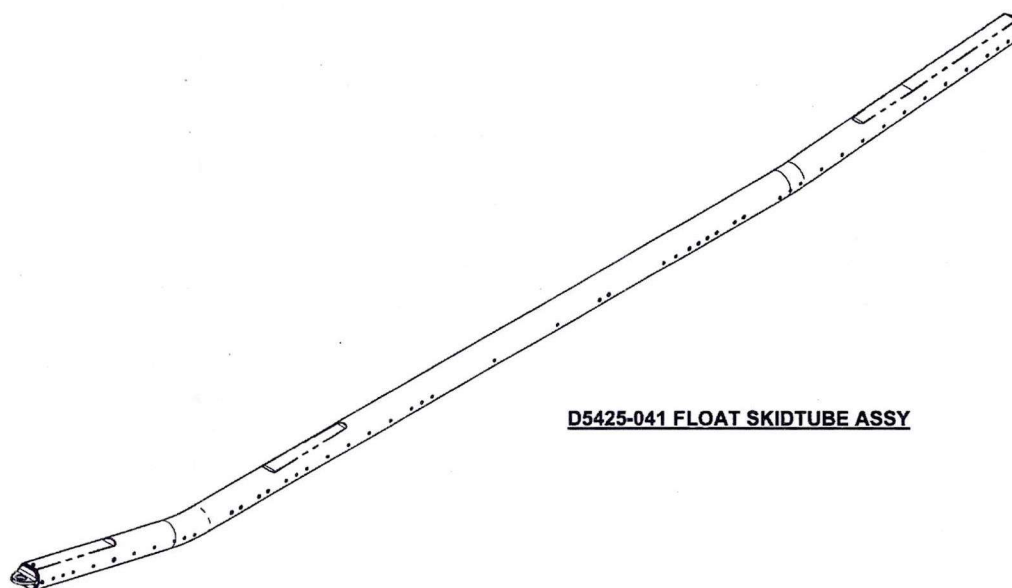
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D6028-195	1	3	0
230-Skidtubes	D5512-1	12	32	0
	D5518-1	18	220	0
290-HandFinish	AN3C5A	6	1,382	0
	D3672-1	6	1,863	0
	D5483-041	1	14	0
	D5484-041	1	13	0
	NAS1149C0332R	6	4,415	0

Part Specifications

Specifications could not be found.

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QTY -041	P/N	DESCRIPTION
X	D5425-041	FLOAT SKIDTUBE ASSY
6	D3672-1	WASHER
1	D5425-1	FLOAT SKIDTUBE
1	D5483-041	TOW CAP ASSY
1	D5484-041	AFT CAP ASSY
12	D5512-1	CROSSBOLT SPACER
37	D5518-1	CROSSBOLT SPACER
6	AN3C5A	BOLT
6	NAS1149C0332R	WASHER



D5425-041 FLOAT SKIDTUBE ASSY

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 192858 ML5
190403

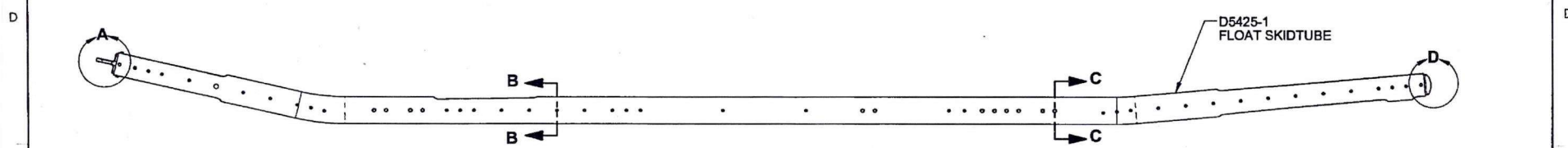
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2018 AUG 16
ECN 18-736

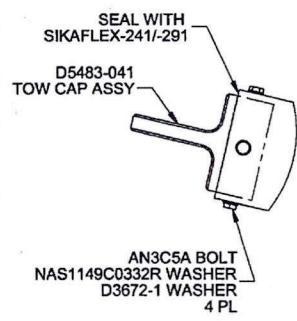
B	CHANGE HOLE SIZE TO IMPROVE OFF-AXIS SWAGING IN SHEETS 5 AND 6 (NCR18-6741). PICTORIAL UPDATE DUE TO CHANGES IN D5483-1.	NO	18.02.05
A	NEW ISSUE	NO	17.07.19
REV.	DESCRIPTION	BY	DATE
DESIGN	NO	DART AEROSPACE USA, INC.	
DRAWN	NO	EUGENE, OR	
CHECKED	ZF	DRAWING NO.	REV. B
MFG. APPR.	DD	D5425	SHEET 1 OF 10
APPROVED	NO	TITLE	SCALE
DE APPR.	DS	412 FLOAT SKIDTUBE	NTS
DATE	18.02.05	COPYRIGHT © 2017 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

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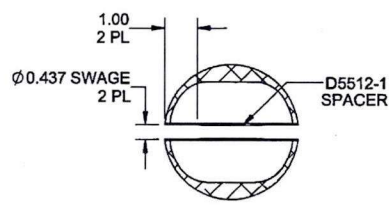
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D5425-041 FLOAT SKIDTUBE ASSY

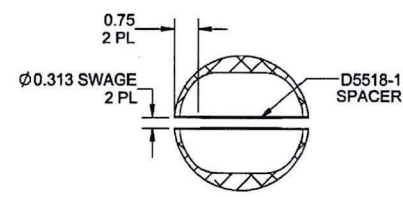


DETAIL A
SCALE 4X



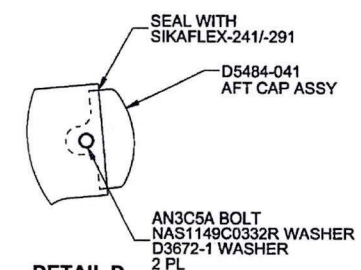
SECTION C-C
SCALE 4X
12 PL

AFTER DRILLING AND BENDING, PERFORM THE FOLLOWING FOR Ø 0.508 HOLES ONLY:
1. WET INSTALL D5512-1 SPACER PER QSI 002
2. SWAGE TO Ø 0.437 X 1.00 DEEP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002



SECTION B-B
SCALE 4X
37 PL

AFTER DRILLING AND BENDING, PERFORM THE FOLLOWING FOR Ø 0.377 HOLES ONLY:
1. INSERT D5518-1 SPACER
2. SWAGE TO Ø 0.313 X 0.75 DEEP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002



DETAIL D
SCALE 4X

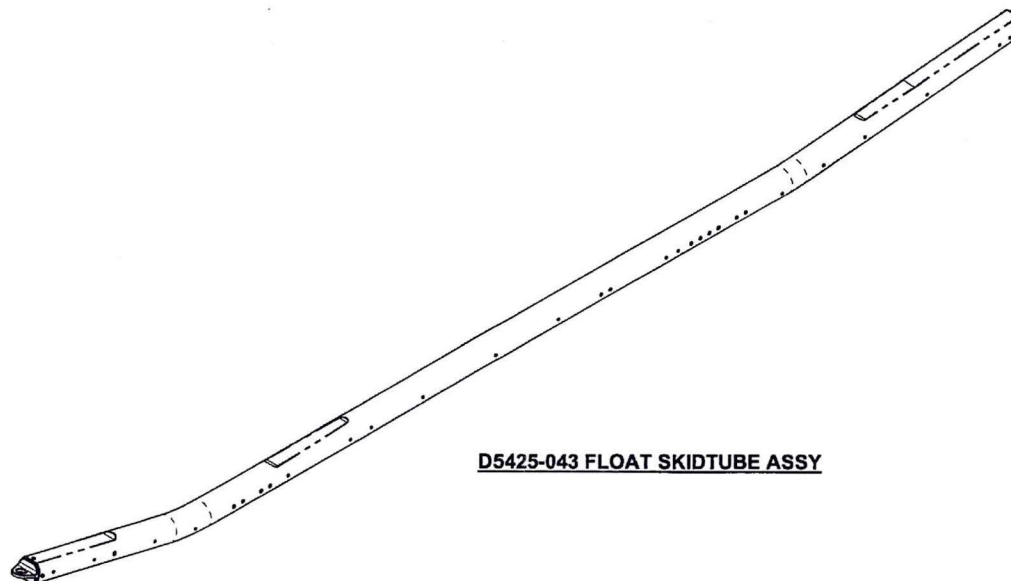
- NOTES:**
1) MATERIAL: N/A
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME PER DART QSI 005 4.2.1.3.3
PAINT PER DART QSI 005 4.2.2.4
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
7) WEIGHT: 54.5lbs
8) COAT ALL EXPOSED FASTENERS WITH LPS "LPS PROCYON"

RELEASED
2018 AUG 16

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	DRAWN	NO		
	CHECKED	ZF	EUGENE, OR	
	MFG. APPR.	DD	DRAWING NO.	REV. B
	APPROVED	NO	D5425	SHEET 2 OF 10
	DE APPR.	DS	TITLE	SCALE
	DATE	18.02.05	412 FLOAT SKIDTUBE	
			NTS	

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QTY -043	P/N	DESCRIPTION
X	D5425-043	FLOAT SKIDTUBE ASSY
6	D3672-1	WASHER
1	D5425-3	FLOAT SKIDTUBE (DART TRIBAG)
1	D5483-041	TOW CAP ASSY
1	D5484-041	AFT CAP ASSY
12	D5512-1	CROSSBOLT SPACER
18	D5518-1	CROSSBOLT SPACER
6	AN3C5A	BOLT
6	NAS1149C0332R	WASHER

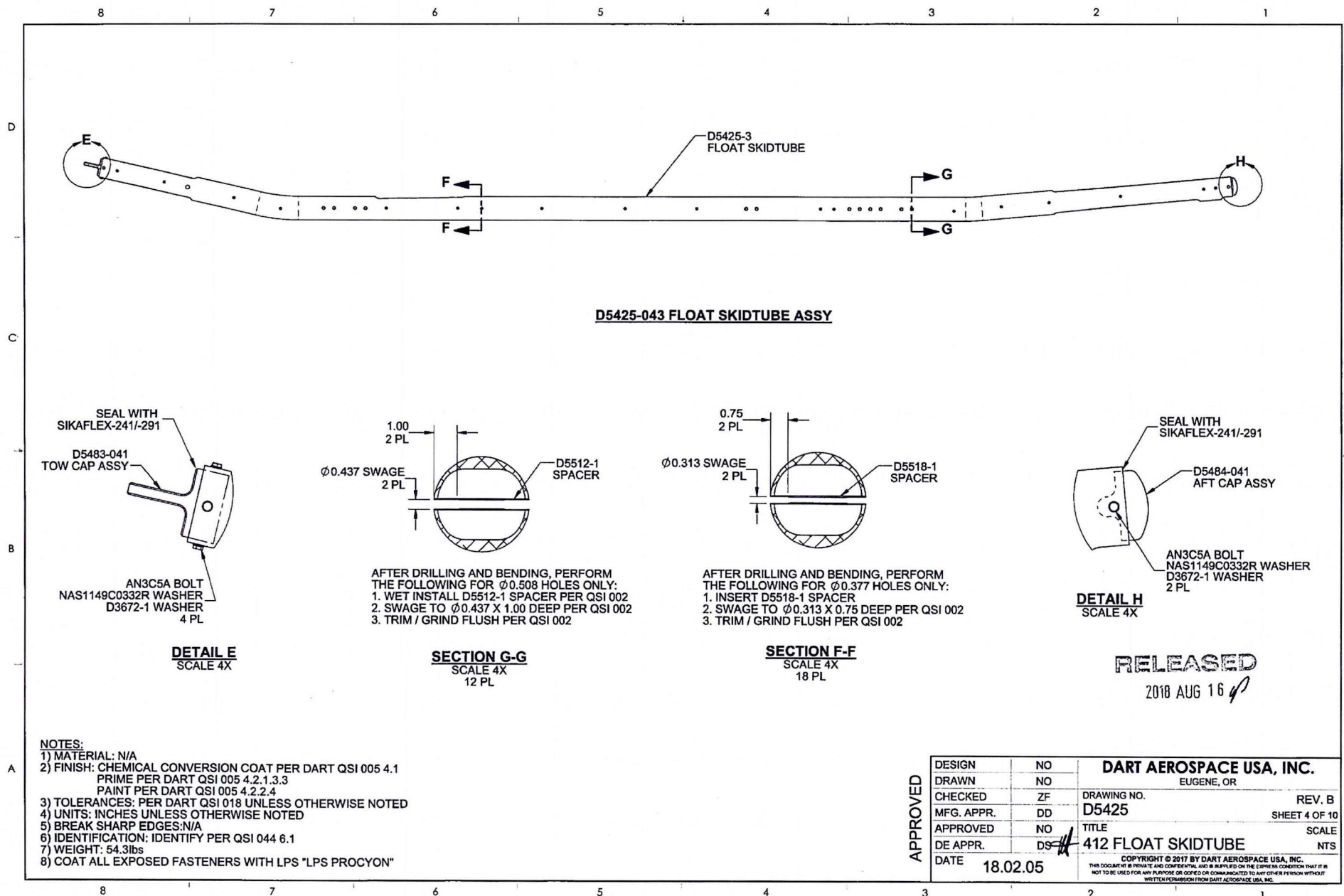


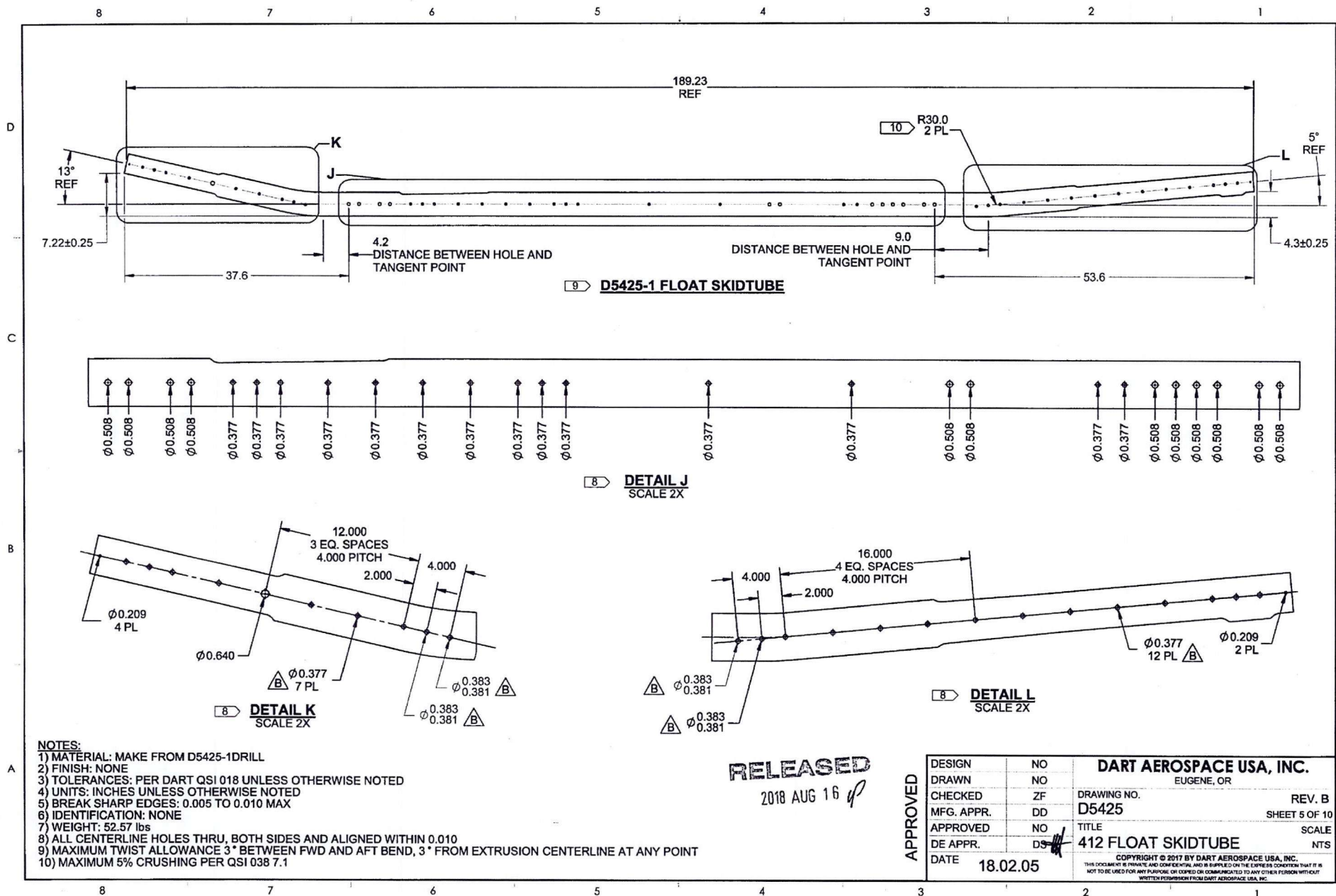
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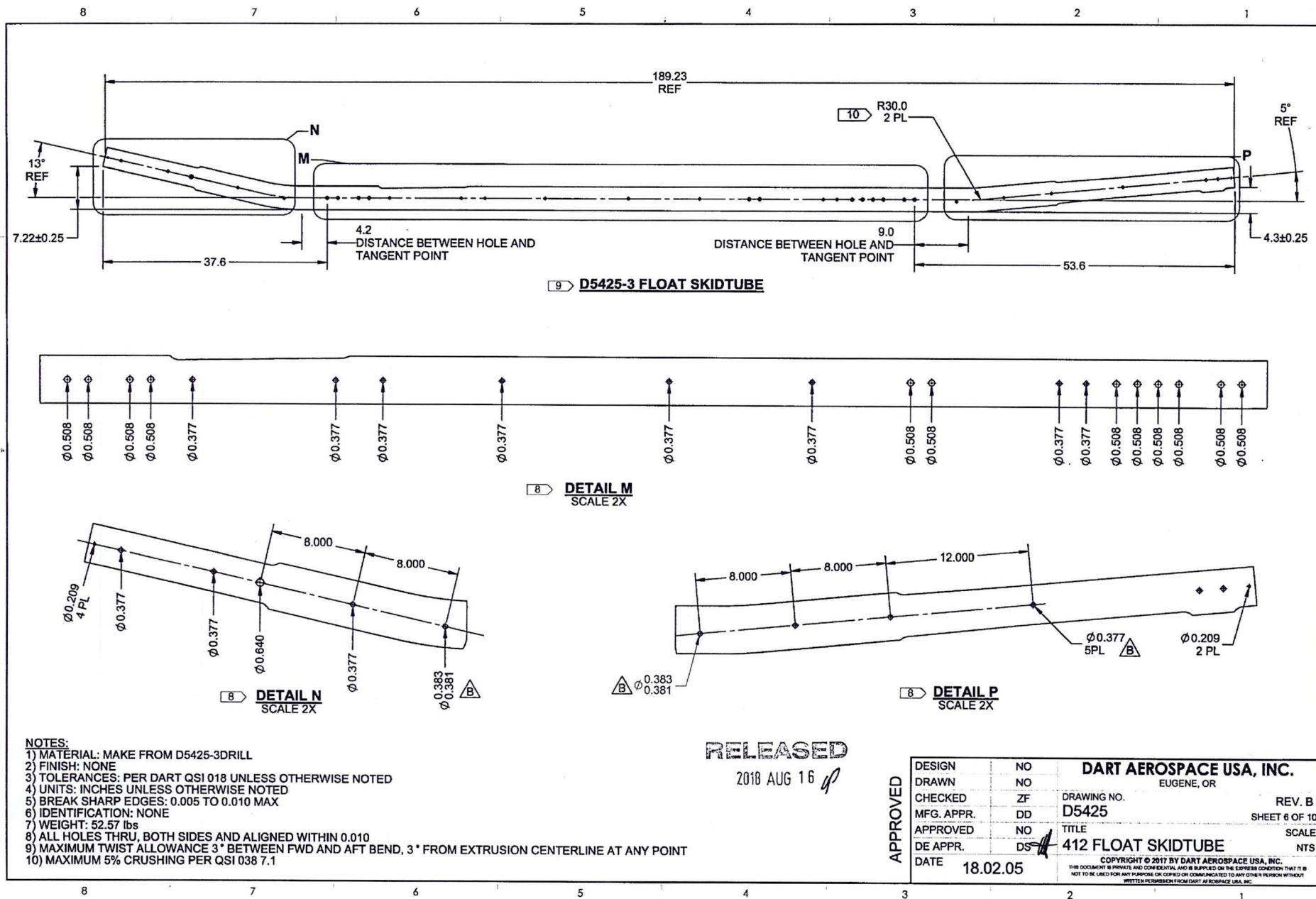
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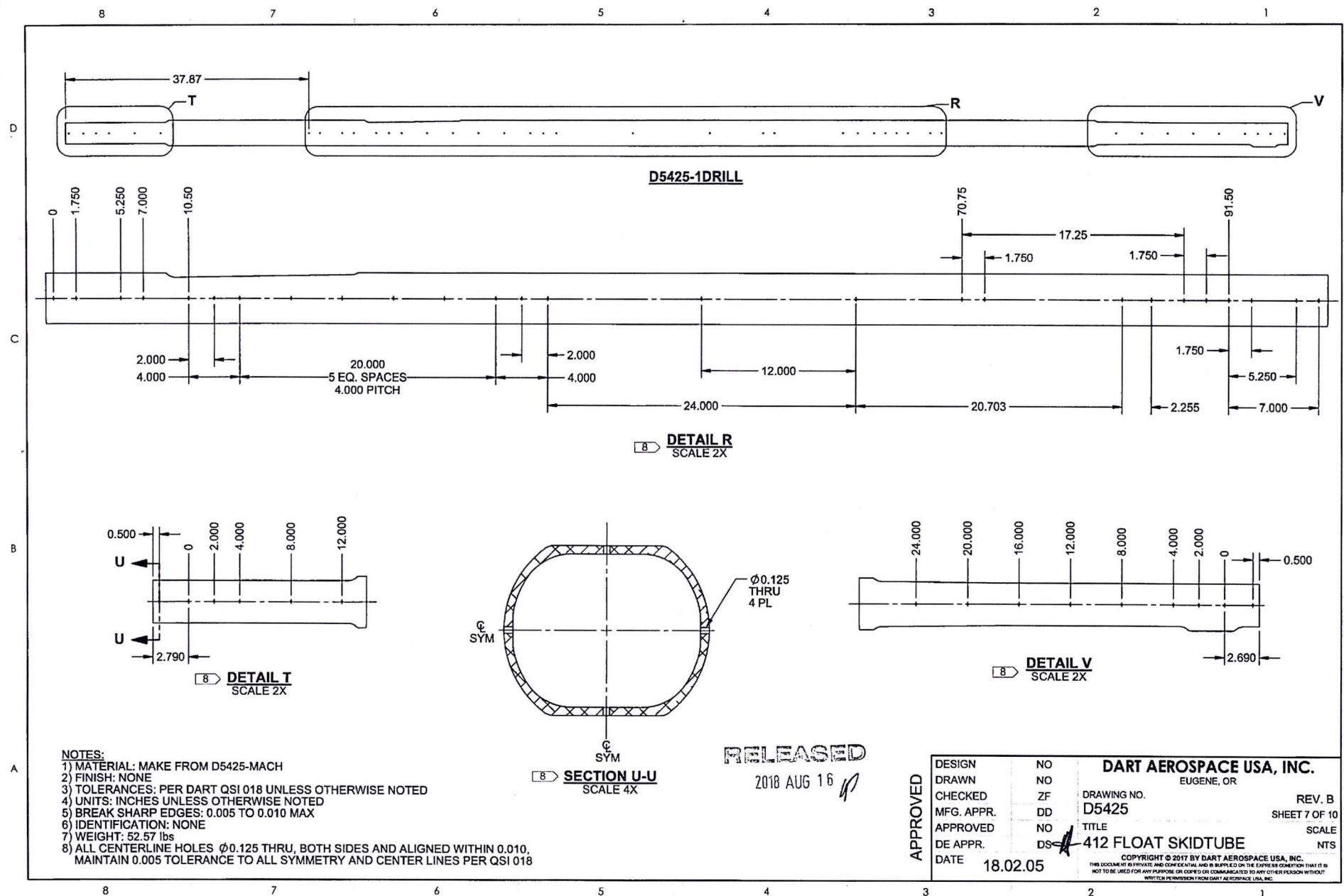
2018 AUG 16 *47*

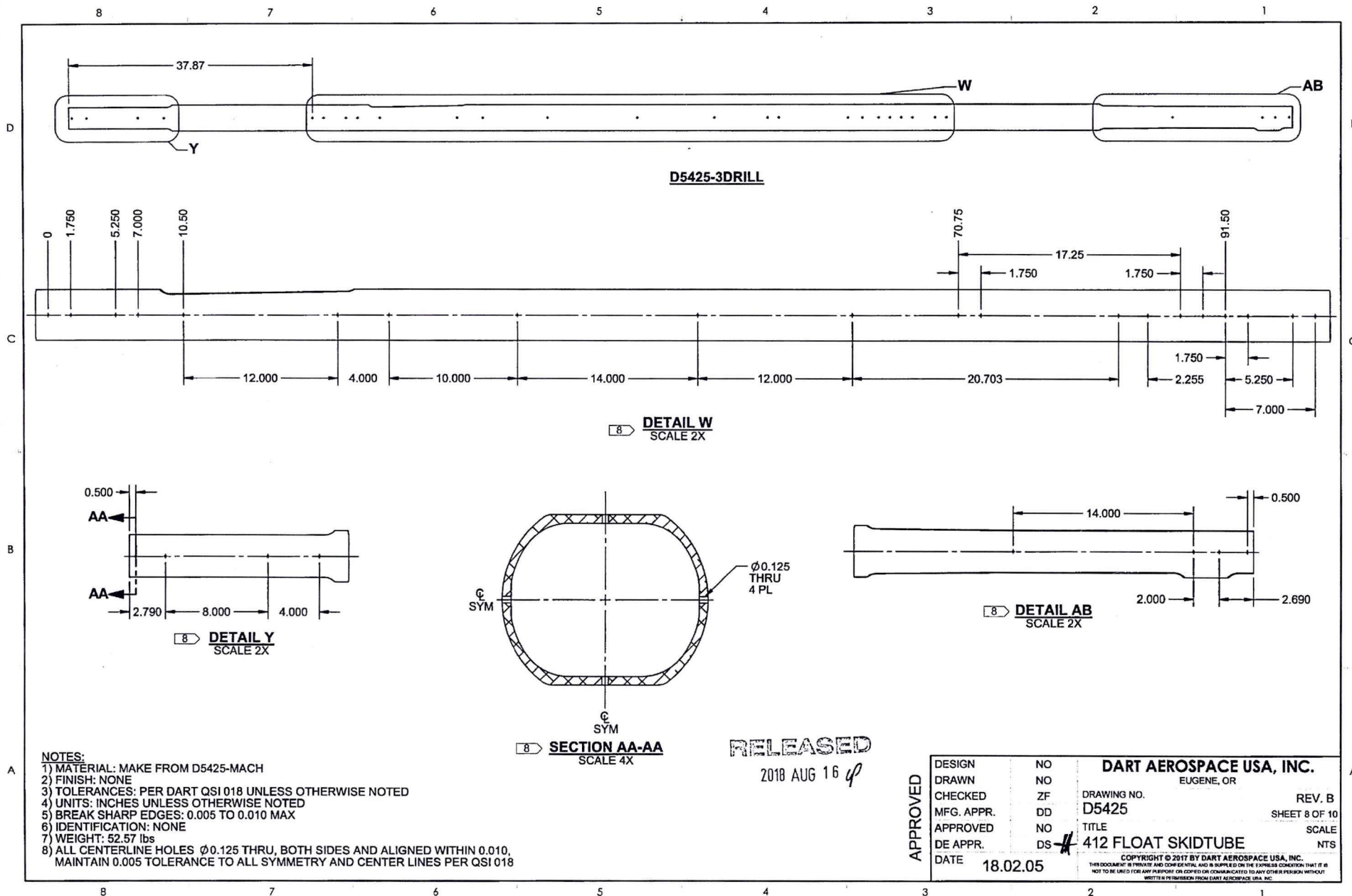
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	APPROVED	NO	TITLE	SCALE
DE APPR.	DS	412 FLOAT SKIDTUBE	NTS	
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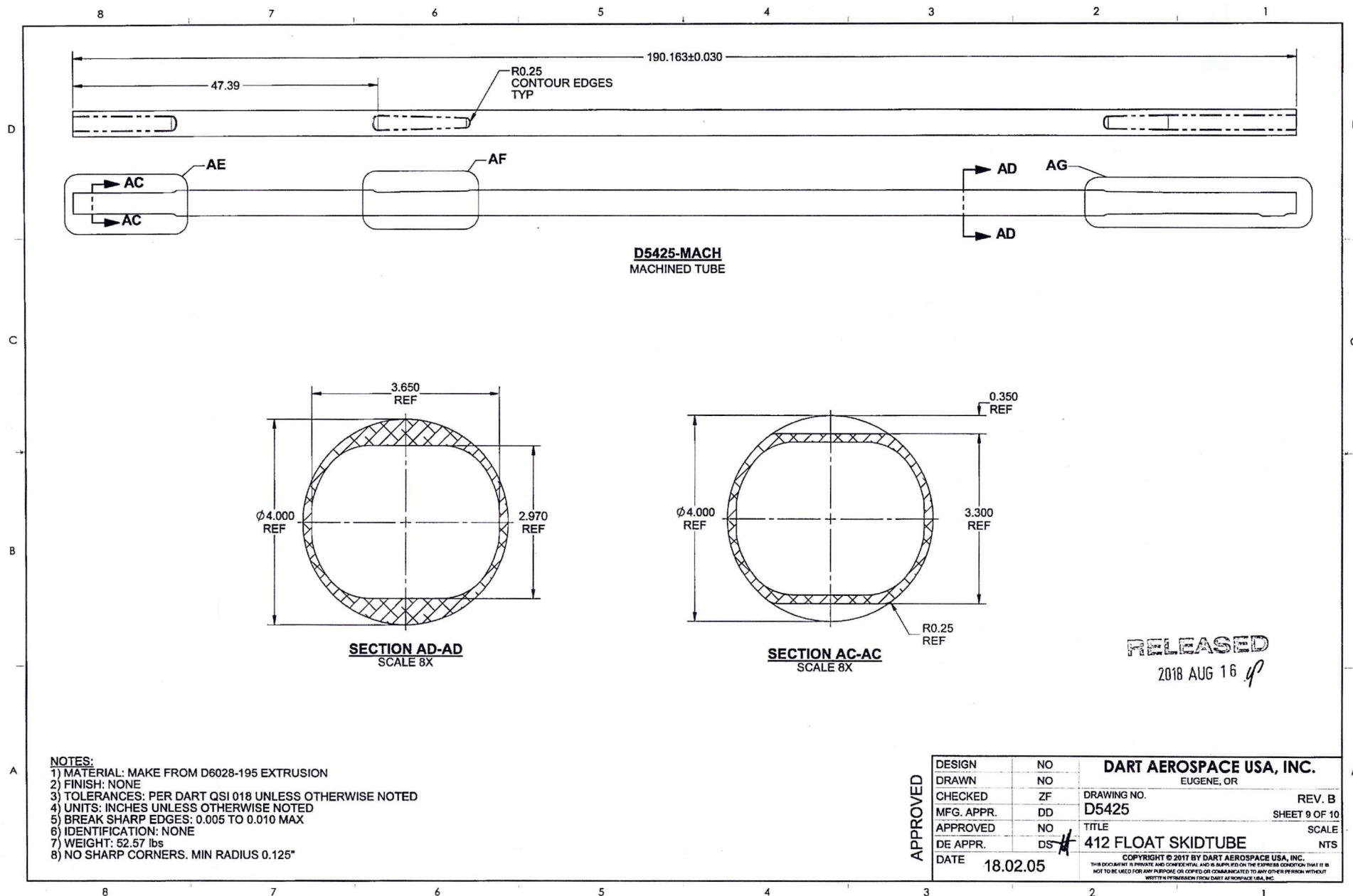














2018 AUG 16 *up*

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CHECKED	ZF	DRAWING NO.	REV. B
MFG. APPR.	DD	D5425	SHEET 10 OF 10
APPROVED	NO	TITLE	SCALE
DE APPR.	DS	412 FLOAT SKIDTUBE	NTS
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Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :		Sequence #:		QTY Affected :	MRB (QSI042)
Description Work Order Deviation			Disposition		Completed By
					Lead hand / Supervisor
					QC / QA Coordinator
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

DART AEROSPACE LTD		Work Order: 192858
Description: FLOAT SKIDTUBE		Part Number: 05425-043
Inspection Dwg:	Rev: B	Page 1 of 1

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.500	+/-0.010	0.500	✓		KT-05	Verif.
2.790	+/-0.010	2.790	✓		" "	" "
10.790	+/-0.010	10.790	✓		TAPE	—
14.790	+/-0.010	14.790	✓			
43.116	+/-0.010	43.116	✓			
44.866	+/-0.010	44.866	✓			
48.366	+/-0.010	48.366	✓			
60.366	+/-0.010	60.366	✓			
64.366	+/-0.010	64.366	✓			
74.366	+/-0.010	74.366	✓			
121.069	+/-0.010	121.069	✓			
123.324	+/-0.010	123.324	✓			
125.866	+/-0.010	125.866	✓			
127.616	+/-0.010	127.616	✓			
129.366	+/-0.010	129.366	✓			
131.116	+/-0.010	131.116	✓			
134.616	+/-0.010	134.616	✓			
136.366	+/-0.010	136.366	✓			
0.500	+/-0.010	0.500	✓		KT-05	Verif.
2.690	+/-0.010	2.690	✓		" "	" "
4.690	+/-0.010	4.690	✓		" "	" "
18.690	+/-0.010	18.690	✓		TAPE	—
15.24	+/-0.030	15.24	✓		" "	" "
21.0	+/-0.100	21.0	✓		R-G	—
0.350	+0.000-0.020	0.340	✓		Machine	—
0.350	+0.000-0.020	0.340	✓		" "	" "
21.0	+/-0.100	21.0	✓		R-G	—
13.71	+/-0.030	13.71	✓		TAPE	—
0.152	+/-0.015	0.142	✓		Machine	—
0.250	+/-0.015	0.240	✓		" "	" "
9.35	+/-0.030	9.35	✓		TAPE	—
0.350	+0.000-0.020	0.340	✓		Machine	—

Measured by: <i>[Signature]</i> 1	Checked by: <i>[Signature]</i>	QC Inspector:
Date: 19/04/25	Date: 19/04/27	Date:

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
B	14.07.31	New Issue	KJ	

5169473